

REMARKS

Applicant requests reconsideration and further evaluation of the rejections presented in the January 16, 2007 Final Office Action.

Claims 1-69 appear in this submission for the Examiner's review. No new claims have been added.

Claims 1, 38-40, 43 and 50 have been amended with this submission.

Claim 37 has been canceled with this submission.

Claims 44-49 have been previously cancelled.

Claims 33, 54 and 62 have been previously presented.

Claims 2-32, 34-36, 41-42, 51-53, 55-61 and 63-69 are original.

No new matter has been added.

Applicant's Response to January 16, 2007 Office Action

Applicant appreciates the Examiner's detailed response to applicant's previous request for continuing examination. In this current request for continuing examination, applicant amends claims 1, 38-40, 43 and 50 and cancels claim 37. Additionally, applicant submits the declaration of David A. Busche, the first-named inventor for this application, as support for comments the Examiner previously stated were "unsupported." Furthermore, applicant requests clarification of some of the Examiner's comments and provides additional explanation for applicant's previous comments. Considering the requests for clarification and the additional explanation, applicant respectfully requests that the Examiner not make his response to this request for continuing examination a final action (if such response is a rejection of any claims) so that applicant may then more fully consider and respond to the Examiner's explanation and response.

In applicant's previous request for continuing examination, applicant submitted that the Examiner failed to establish a *prima facie* case of obviousness. The Examiner has cited

U.S. Patent 5,888,648 to Donovan et al. ("Donovan") and U.S. Patent 6,221,410 to Ramesh et al. ("Ramesh") as references that when modified and/or combined allegedly teach or suggest all the claim limitations of this application. However, there is no cogent or rational suggestion or motivation to combine the references, the modification or combination does not present a reasonable expectation of success and, therefore, the references do not teach or suggest all the claim limitations of this application. Applicant continues to submit that the Examiner has failed to establish a *prima facie* case of obviousness.

No Cogent or Rational Suggestion or Motivation to Combine

The Examiner states, "one of ordinary skill in the art would have recognized to have looked to Ramesh et al. for a teaching of how to modify the bag of Donovan et al. since both Donovan et al. and Ramesh et al. pertain to food packaging that includes oriented polypropylene films." (January 16, 2007, Office Action, Page 10.) However, as previously asserted by applicant and now also declared by Mr. Busche, the polypropylene taught in Ramesh is not an oriented polypropylene (OPP) as that term is used by Donovan and generally accepted in the art. Mr. Busche declares as follows:

Donovan uses the term "oriented polypropylene" (or "OPP"). This term usually refers to a heat-set, heat-stabilized material which is oriented and held at a high temperature to relieve and remove strains that would cause it to shrink if subjected to a high temperature in the future. The OPP in Donovan refers to a packaging film that is not intended to shrink.

(Busche Declaration, Paragraph 5.) Therefore, an oriented film is not necessary a heat-shrinkable film; and an OPP is not the same as a heat-shrinkable biaxially oriented film containing polypropylene.

Additionally as previously asserted by applicant and now also declared by Mr. Busche, the Exxon Mobil OPP films, including the films of Donovan et al., are annealed. Mr. Busche declares as follows:

Donovan is assigned to Mobil Oil Corporation, now Exxon Mobil Corporation. Exxon Mobil packaging films are known to be not heat-shrinkable and to be designed away from including heat-shrink properties.

(Busche Declaration, Paragraph 5.) As not heat-shrinkable films, the films of Donovan are, by definition, annealed¹. However, as stated in Ramesh,

As used herein, the term "oriented" refers to a polymer-containing material which has been stretched at an elevated temperature (the orientation temperature), followed by being "set" in the stretched configuration by cooling the material while substantially retaining the stretched dimensions. Upon subsequently heating unrestrained, unannealed, oriented polymer-containing material to its orientation temperature, heat shrinkage is produced almost to the original unstretched, i.e., pre-oriented dimensions.

(Column 9 lines 44-52.) In the January 16, 2007, Office Action, the Examiner states,

Applicant's citation of "... [u]pon subsequently heating unrestrained, unannealed, oriented polymer-containing material to its orientation temperature..." (col. 9, lines 48-51) does not establish that the film of Ramesh et al. is unrestrained and/or unannealed because this portion of the patent is directed to an intermediate product of the final film; for example, the fact that the film is "unrestrained, unannealed" prior to "heating" the film "to its orientation temperature" does not conclusively establish that the film is unrestrained, unannealed" after it is heated and consequently, oriented."

(Page 11.) Applicant is confused by the Examiner's statement and respectfully requests additional explanation and clarification. According to Ramesh (as in Column 9 above), an "oriented" film is stretched and set and, if unrestrained and unannealed, shrinks upon subsequent heating. Ramesh states its purpose, in part, is to provide a heat-shrinkable film. (See, for example, Column 2 lines 60-62.) Column 9 lines 44-52 of Ramesh explain that heat-shrinkage is produced when unannealed material is subsequently heated. Therefore, in sharp contrast to the annealed OPP films of Donovan, the heat-shrinkable biaxially-oriented films comprising polypropylene of Ramesh are, by definition, unannealed.

Donovan teaches an annealed (and, therefore, not heat-shrinkable) OPP; however, Ramesh teaches an unannealed (and, therefore, heat-shrinkable) biaxially-oriented film comprising polypropylene. It would not have been obvious to one of ordinary skill in the art to modify the bag of Donovan with the film of Ramesh simply because both include oriented polypropylene films. As stated by the Federal Circuit in In re Kahn, 78 USPQ2d 1329, 1336

¹ As stated in U.S. Patent 6,511,688, incorporated by reference in the present application (see, Application, page 19 line 14), "The general annealing process by which biaxially stretched heat shrinkable films are heated under controlled tension to reduce or eliminate shrinkage values is well known in the art."

(Fed. Cir 2006) (and as quoted with agreement by the Court in KSR International Co. v. Teleflex, Inc., 82 USPQ2d 1385, 1396),

Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. See Lee, 277 F.3d at 1343-46; Rouffett, 149 F.3d at 1355-59. This requirement is as much rooted in the Administrative Procedure Act, which ensures due process and non-arbitrary decisionmaking, as it is in §103. See Id. at 1344-45.

No Reasonable Expectation of Success

In addition to providing no cogent or rational reasons to modify Donovan and Ramesh to allegedly obtain the claims of the present application, the Examiner has demonstrated no reasonable expectation of success in doing so. In fact, Donovan teaches two different areas for which modification should not be attempted and would not be successful.

Donovan's disclosure includes hermetic seals "with the ability to be peeled opened without destruction of several layers of the film." (Abstract.) As declared by Mr. Busche,

Due to the designing away from heat-shrink properties, Exxon Mobil packaging films are also known to have an opening system that could not withstand the strain placed on seals in a film with shrink properties.

(Busche Declaration, Paragraph 5.) Donovan further explains,

Additionally, it is also desirable to have provide seals which can be readily opened by the consumer without creating a "z-direction" tear. . . . A z-direction tear is one which does not simply separate at the line at which the seal is formed. Instead, the separation extends to layers of the film which ripped along the layers thereof and not simply delaminated one from another. . . . It is desirable to produce a package which will separate along the seal during opening so that the package can be easily reclosed and secured against passage of air. . . . [T]he present invention has also improved packaging prepared in accordance with the invention by eliminating z-direction tear upon separation of the sealed films. Thus, peelable hermetic seals can be provided.

(Column 2 lines 34-54, excerpts and Column 5 lines 32-36.) This, however, is in direct contrast and teaches away from applicant's preferred approach to a peelable seal. As stated in the application,

A variety of peelable films and peelable sealing systems may be employed in the present invention. In a preferred embodiment, a film comprising a coextrusion of at

least three layers (referred to as three layer peelable system to distinguish it from systems using one or more contaminated seal layers described below) having an outer layer, an inner heat seal layer and a tie layer disposed between the outer layer and the inner heat seal layer is used. In this preferred three layer system embodiment, the film layers are selected such that peeling occurs by breaking apart the tie layer and/or a bond between the tie layer and at least one of the outer and inner layers. Permanent, peelable, and fracturable bonds may be engineered into the coextrusion process, e.g., by providing two adjacent first and second layers having materials with a greater affinity for each other compared to the second layer and an adjacent third layer where this establishes a relatively permanent bond between the layers, when two materials have a lesser affinity for each other. . . . It is also contemplated that a peelable seal using one or more so-called "contaminated" surface layers may be utilized where peeling occurs at a seal layer interface 32 rather than at an interior layer of film 11. This type of peeling system suffers from disadvantage associate with, e.g., controlling the diverging properties of providing high seal strength with desirable low forms for peelings, as well as problems of sealing under conditions which may adversely affect seal integrity, e.g., where an article being packaged deposits particulates, starch, fat, grease or other components which may lessen seal strength or hamper the ability to provide a seal of desired strength such as a strong hermetic fusion bond, e.g., by heat sealing. Such sealing systems are often referred to as two layer peeling systems.

(Application, Page 9 line 22 – Page 10 line 7 and Page 11 line 19 – Page 12 line 2.) The present application describes (and prefers) a peelable seal that "rips" along the layers and does not simply separate along the seal. As quoted above, however, Donovan calls such a seal undesirable and not a way to provide peelable hermetic seals and, therefore, teaches away from using the preferred seal of the present application.

There is additional evidence of Donovan's teaching away from the present application. As applicant previously submitted in the previous request for continuing examination, the substitution of the films of Ramesh as the film of Donovan would render Donovan unsatisfactory for its intended purpose. Donovan teaches away from the use of heat-shrinkable materials. Donovan explains,

In order, therefore, to provide high barrier multi-layer film with hermetic seals, several factors must be considered. It is important to provide a sealing capability at as low a temperature as possible to order to retain, among other things . . . little or no film shrinkage. . . . Furthermore, the film must have surface characteristics which permit it to be readily used on high-speed machinery. For example, the coefficient of friction must be such that it can be readily unrolled from a high volume roll of film and passed through the packaging machinery. Undesirable sticking or friction characteristics can cause bag imperfections and interruption of high-speed processing.

(Column 2 lines 19-32, excerpts.) In the January 16, 2007 Office Action, the Examiner states, "The portion of Donovan et al. Applicant cites (col. 2, lines 19-25) is directed to processing of the film and is not directed to the final product." (Page 12.) Applicant is, once again, confused by the Examiner's statement and respectfully requests additional explanation and clarification. Donovan states, "A primary concern for designing multiple-layer films for packaging is to ensure they can [ultimately] be processed on high speed form/fill/seal machinery." (Column 1 lines 42-43.) Column 2 discloses the necessary characteristics of the final multi-layer film for high-speed machinery, including the characteristic of a low-temperature seal providing for "little or no film shrinkage."

Donovan provides further teaching away from the use of heat-shrinkable materials:

In order to provide a hermetic seal to packages formed from multilayer films, care must be taken to provide a sealing medium which accommodates the nature of the barrier film used for the package, i.e., its . . . *adversity to temperature*

(Column 6 lines 20-25.) (As discussed above, unrestrained, unannealed, oriented film shrinks when subjected to heated environments.)

Donovan also presents several examples of structures of high barrier films that may be used in conjunction with the teachings of Donovan. (Column 9 line 55 – Column 11 line 13.) One of the example structures emphasizes the non-shrink characteristics of the high barrier films required by Donovan: "The sum of the absolute values of dimensional deformation is 2% or less in the longitudinal and transverse directions under conditions of 120°C. for five minutes." (Column 11 lines 5-8.) Additionally, Example 1 and Example 5 disclose an annealing process (i.e., heat-setting, heat stabilizing, as in Paragraph 5 of the Busche Declaration):

The coextrusion was oriented in the machine direction followed by extrusion of a sealing layer of EPB random copolymer The total structure was then oriented in the transverse direction in an oven to provide biaxial orientation. (Example 1, Column 12 lines 65-67.)

The coextrusion was machine direction oriented followed by extrusion coating of a sealing layer The total structure was then oriented in the transverse direction in an oven thereby providing biaxial orientation to the film. (Example 5, Column 13 lines 60-65.)

In the January 16, 2007 Office Action, the Examiner states, "Examples 1 and 5 of Donovan et al. are merely examples and do not serve to limit the scope of the invention of Donovan et al. . . . The example Applicant cites as showing that Donovan et al. teaches away from the use of heat-shrinkable materials is merely an example and therefore does not limit the scope of the invention of Donovan et al." (Page 12.) Applicant does not contend that the examples cited limit the scope of the invention of Donovan. Applicant agrees that examples do not limit the scope of the claims and that it is the claims that measure and define invention. (See W.L. Gore & Associates, Inc., v. Garlock, Inc., 220 USPQ 303, 309 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).) However, the Examiner must consider all the teachings of Donovan, including those that may lead away from the claims of the present invention. As stated in the M.P.E.P., "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention" (emphasis in original). (M.P.E.P. § 2141.02 VI., Eighth Edition, August 2001, Latest Revision August 2006, citing Gore.) Gore states,

[T]he district court recognized that analysis of the obviousness issue under §103 requires determination of the scope and content of the prior art, the differences between the prior art, and the claims at issue, and the level of ordinary skill in the pertinent art. Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). In its consideration of the prior art, however, the district court erred . . . in considering the references in less than their entireties, i.e., in disregarding disclosures in the references that diverge from and teach away from the invention at hand. In re Kuderna, 426 F.2d 385, 165 USPQ 575 (CCPA 1970).

(Gore, 220 USPQ at 311.) The Examiner is not permitted to disregard portions of Donovan merely because such portions are in examples. As required by the M.P.E.P. and Gore, the Examiner must consider those portions. And, in doing so, the Examiner will find that Donovan teaches away from the use of heat-shrinkable materials and, accordingly, the claims of the present invention. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." (In re Gurley, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994).) "[I]t is improper to combine references where the references teach away from their combination." (M.P.E.P. §

2145 X.D.2. Eighth Edition, August 2001, Latest Revision August 2006, citing In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).) Additionally, “[w]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” (KSR, 82 USPQ2d at 1395, citing United States v. Adams, 383 U.S. 39, 51-52 (1966).) Gurley, Grasselli and KSR clearly define the impropriety of combining Ramesh with Donovan to reject the pending claims of the present application.

No Teaching or Suggestion of All the Claim Limitations

In the January 16, 2007, Office Action, the Examiner concedes, “Donovan et al. fail to teach that the polymeric film is heat shrinkable.” (Page 3.) The Examiner relies on Ramesh for the element of heat-shrinkability. However, it is not proper to combine Donovan with Ramesh. And, in fact, Donovan teaches away from doing so. Therefore, the Examiner has not cited prior art that teaches or suggests the element of heat-shrinkability. To further clarify the heat-shrinkable characteristics of the claims of the present invention, applicant is amending claims 1, 43 and 50 to state the “sheet of heat-shrinkable film comprises a biaxially stretched film having a shrinkage value of at least 20% shrink at 90°C in at least one direction.” This amendment incorporates the limitation of claim 37 in the independent claims (and also cancels claim 37 and amends claims 38, 39 and 40 to change their dependency from claim 37 to claim 1). Support for this amendment may be found in the original application at Page 9 lines 3-5 and in claim 37.

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” (M.P.E.P. §2143.03 Eighth Edition, August 2001, Latest Revision August 2006, citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).) Claim 1, Claim 43 and Claim 50 of the subject application each includes the limitation of a sheet of heat-shrinkable film which comprises a biaxially stretched film having a shrinkage value of at least 20% shrink at 90°C in at least one direction. Claims 2-36, 38-

42 and 63 depend (ultimately) from Claim 1 and, hence, include the limitations of Claim 1; and Claims 51-62 and Claims 64-69 depend (ultimately) from Claim 50 and, hence, include the limitation of Claim 50. Therefore, the applicant submits that Claims 1-36, 38-43 and Claims 50-69 are patentable over Donovan in view of Ramesh and respectfully requests that the Examiner withdraw the 35 U.S.C. §103(a) rejection to these claims.

Conclusion

In view of the above remarks and amendment, applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness and requests that the Examiner withdraw the outstanding rejections. The applicant submits that the claims are patentable and in condition for allowance.

If a telephone conference would expedite allowance of the claims, the Examiner may contact the applicant via applicant's attorney at (920) 303-7970.

Respectfully submitted,

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Christine E. Benter
Registration No. 51,457

Bemis Company, Inc.
2200 Badger Avenue
Oshkosh, Wisconsin 54904
Telephone: 920-303-7970
Facsimile: 920-303-7810
Email: cebenter@bemis.com